

UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.
GC-334

Total Pages in this Submission

45

TO THE ASSISTANT COMMISSIONER FOR PATENTS

Box Patent Application
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

Locking Device For Tools And Equipment

and invented by:

Darren J. Kady and Deborah A. Kady

If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:

☒ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 60/065,941

Which is a:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____

Which is a:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____

Enclosed are:

Application Elements

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 160 pages and including the following:
 - a. ☒ Descriptive Title of the Invention
 - b. ☒ Cross References to Related Applications (if applicable)
 - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
 - d. ☐ Reference to Microfiche Appendix (if applicable)
 - e. ☒ Background of the Invention
 - f. ☒ Brief Summary of the Invention
 - g. ☒ Brief Description of the Drawings (if drawings filed)
 - h. ☒ Detailed Description
 - i. ☒ Claim(s) as Classified Below
 - j. ☒ Abstract of the Disclosure

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Application Elements (Continued)

3. ☒ Drawing(s) (when necessary as prescribed by 35 USC 113)
- a. ☐ Formal b. ☒ Informal Number of Sheets 12
4. ☒ Oath or Declaration
- a. ☒ Newly executed (original or copy) ☐ Unexecuted
- b. ☐ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional application only)
- c. ☒ With Power of Attorney ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application,
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (usable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied
under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby
incorporated by reference therein.
6. ☐ Computer Program in Microfiche
7. ☐ Genetic Sequence Submission (if applicable, all must be included)
- a. ☐ Paper Copy
- b. ☐ Computer Readable Copy
- c. ☐ Statement Verifying Identical Paper and Computer Readable Copy

Accompanying Application Parts

8. ☐ Assignment Papers (cover sheet & documents)
9. ☐ 37 CFR 3.73(b) Statement (when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure Statement/PTO-1449 ☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Acknowledgment postcard
14. ☒ Certificate of Mailing
- ☐ First Class ☒ Express Mail (Specify Label No.): EL177427699US

UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity)

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Accompanying Application Parts (Continued)

15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☒ Small Entity Statement(s) - Specify Number of Statements Submitted: 1
17. ☒ Additional Enclosures (please identify below):

Notification of Filing of Continuing or Divisional Application

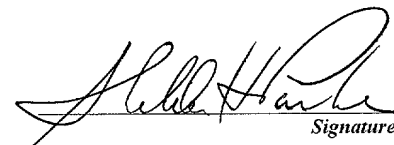
Fee Calculation and Transmittal

CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	18	- 20 =	0	x \$11.00	\$0.00
Indep. Claims	2	- 3 =	0	x \$41.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$395.00
OTHER FEE (specify purpose)					\$0.00
TOTAL FILING FEE					\$395.00

- ☒ A check in the amount of \$395.00 to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. 16-0478 as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of _____ as filing fee.
- ☒ Credit any overpayment.
- ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Dated: October 26, 1998


Signature
Sheldon H. Parker
300 Preston Avenue, Suite 300
Charlottesville, VA 22902
(804) 977-6606
Reg. No. 20,738

CC:

10/26/98
jc541 U.S. PTO

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Darren J. Kady + Deborah A. Kady
Serial No.: 60/065,941 Group No.:
Filed: 10/27/97 Examiner:
For: Locking Device for Tools and Equipment

jc549 U.S. PTO

09/178837

10/26/98

Commissioner of Patents and Trademarks
Washington, D.C. 20231

NOTIFICATION OF FILING OF CONTINUING OR DIVISIONAL APPLICATION

Notification is hereby being made of the filing of a:

- ☐ continuation
☒ continuation-in-part
☐ divisional

application for this case

- ☒ concurrently herewith
☐ on _____

(date)

Sheldon H. Parker
SIGNATURE OF ATTORNEY

Reg. No. 20,738

Sheldon H. Parker
Type or print name of attorney

Tel. No.: (804) 977-6606

300 Preston Avenue, Suite 300
P.O. Address
Charlottesville, VA 22902

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

☐ 37 CFR 1.8(a)
with sufficient postage
as first class mail

(check and complete appropriate item below).

or

☒ 37 CFR 1.10
as "Express Mail Post Office
to Addressee" Mailing Label
No. EL177427699US

Date 10-26-98

Valinda K. Drumheller
(Type or print name of person mailing paper)

Valinda K. Drumheller
(Signature of person mailing paper)

ADDED PAGES FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED

NOTE: "In order for an application to claim the benefit of a prior filed copending national application, the prior application must name as an inventor at least one inventor named in the later filed application and disclose the named inventor's invention claimed in at least one claim of the later filed application in the manner provided by the first paragraph of 35 U.S.C. 112." 37 CFR 1.78(a).

NOTE: "In addition the prior application must be (1) complete as set forth in § 1.51, or (2) entitled to a filing date as set forth in § 1.53(b) and include the basic filing fee set forth in § 1.16; or (3) entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(d)." 37 CFR 1.78(a).

17. Relate Back—35 U.S.C. 120

NOTE: "Any application claiming the benefit of a prior filed copending national or international application must contain or be amended to contain in the first sentence of the specification following the title a reference to such prior application identifying it by serial number and filing date or international application number and international filing date and indicating the relationship of the applications." 37 CFR 1.78(a). See also the Notice of April 28, 1987 (1079 O.G. 32 to 46).

☐ Amend the Specification by inserting before the first line the sentence:

"This is a

- ☐ continuation
☒ continuation-in-part
☐ divisional

of copending application(s)

- ☒ serial number 001 065, 941 filed on 10/27/97"
☐ International Application _____ filed on _____
 _____ and which designated the U.S."

NOTE: The proper reference to a prior filed PCT application which entered the U.S. national phase is the U.S. serial number and the filing date of the PCT application which designated the U.S.

NOTE: (1) Where the application being transmitted adds subject matter to the International Application then the filing can be as a continuation-in-part or (2) it is desired to do so for other reasons, e.g. where no declaration is available, no English translation is available or no fee is to be paid on filing then the filing can be as a continuation. In these cases the International Application designating the U.S. is treated as the parent case in the U.S. and is an alternative to the completion of the International Application under 35 U.S.C. 371(c)(4) which must meet the requirements of 37 CFR 1.61(a). This alternative permits the completion of the filing requirements within any term set by the PTO under 37 CFR 1.53(d) to which the extension provisions of 37 CFR 1.136(a) apply. (Whereas, if the filing is as an international application entering the U.S. stage then the fee, declaration and/or English translation (where necessary) is due within 20 months of the priority date but can be paid within 22 months of the priority date (or is due within 30 months of the priority date but can be submitted within 32 months of the priority date) with the surcharges set forth in 37 CFR 1.492(e), (f) and 37 CFR 1.495(c); however, the provisions of 37 CFR 1.136 do not apply to this 22 or (32 month) period. 37 CFR 1.61(b).)

NOTE: The deadline for entering the national phase in the U.S. for an international application was clarified in the Notice of April 28, 1987 (1079 O.G. 32 to 46) as follows:

"The Patent and Trademark Office considers the international application to be pending until the 22nd month from the priority date if the United States has been designated and no Demand for International Preliminary Examination has been filed prior to the expiration of the 19th month from the priority date and until the 32nd month from the priority date if a Demand for International Preliminary Examination which elected the United States of America has been filed prior to the expiration of the 19th month from the priority date, provided that a copy of the international application has been communicated to the Patent and Trademark Office within the 20 or 30 month period respectively. If a copy of the international application has not been communicated to the Patent and Trademark Office within the 20 or 30 month period respectively, the international application becomes abandoned as to the United States 20

or 30 months from the priority date respectively. These periods have been placed in the rules as paragraph (h) of § 1.494 and paragraph (i) of § 1.495. A continuing application under 35 U.S.C. 365(c) and 120 may be filed anytime during the pendency of the international application."

18. Relate Back—35 U.S.C. 119 Priority Claim for Prior Application

The prior U.S. application(s), including any prior International Application designating the U.S., identified above in item 17, in turn itself claim(s) foreign priority (ies) as follows:

country	appl. no.	filed on
---------	-----------	----------

The certified copy (ies) has (have)

- ☐ been filed on _____ in prior application 0 / _____ which was filed on _____
- ☐ is (are) attached

WARNING: The certified copy of the priority application which may have been communicated to the PTO by the International Bureau may **not** be relied on without any need to file a certified copy of the priority application in the continuing application. This is so because the certified copy of the priority application communicated by the International Bureau is placed in a folder and is not assigned a U.S. serial number unless the national stage is entered. Such folders are disposed of if the national stage is not entered. Therefore such certified copies may not be available if needed later in the prosecution of a continuing application. An alternative would be to physically remove the priority documents from the folders and transfer them to the continuing application. The resources required to request transfer, retrieve the folders, make suitable record notations, transfer the certified copies, enter and make a record of such copies in the Continuing Application are substantial. Accordingly, the priority documents in folders of international applications which have not entered the national stage may not be relied on. Notice of April 28, 1987 (1079 O.G. 32 to 46).

19. Maintenance of Copendency of Prior Application

NOTE: The PTO finds it useful if a copy of the petition filed in the prior application extending the term for response is filed with the papers constituting the filing of the continuation application. Notice of November 5, 1985 (1060 O.G. 27).

- A. ☐ Extension of time in prior application

(This item **must** be completed and the papers filed in the prior application if the period set in the prior application has run)

- ☐ A petition, fee and response extends the term in the pending **prior** application until _____
- ☐ A **copy** of the petition filed in prior application is attached

- B. ☐ Conditional Petition for Extension of Time in Prior Application

(complete this item if previous item not applicable)

- ☐ A conditional petition for extension of time is being filed in the pending **prior** application.
- ☐ A **copy** of the conditional petition filed in the prior application is attached

20. Further Inventorship Statement Where Benefit of Prior Application(s) Claimed

NOTE: "If the continuation, continuation-in-part, or divisional application is filed by less than all the inventors named in the prior application a statement **must** accompany the application when filed requesting deletion of the names of the person or persons who are not inventors of the invention being claimed in the continuation, continuation-in-part, or divisional application." 37 CFR 1.62(a) [emphasis added]. (dealing with the file wrapper continuation situation).

NOTE: "In the case of a continuation-in-part application which adds and claims additional disclosure by amendment, an oath or declaration as required by § 1.63 must be filed. In those situations where a new oath or declaration is required due to additional subject matter being claimed, additional inventors may be named in the continuing application. In a continuation or divisional application which discloses

(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed [4-1.1]—page 2 of 4)

and claims only subject matter disclosed in a prior application, no additional oath or declaration is required and the application must name as inventors the same or less than all the inventors in the prior application." 37 CFR 1.60(c). (dealing with the continuation situation).

(complete applicable item (a), (b) and/or (c) below)

- (a) ☒ This application discloses and claims only subject matter disclosed in the prior application whose particulars are set out above and the inventor(s) in this application are

☒ the same

☐ less than those named in the prior application and it is requested that the following inventor(s) identified for the prior application be deleted:

(Type name(s) of inventor(s) to be deleted)

- (b) ☐ This application discloses and claims additional disclosure by amendment and a new declaration or oath is being filed. With respect to the prior application the inventor(s) in this application are

☐ the same

☐ the following additional inventor(s) have been added

(Type name(s) of inventor(s) to be added)

- (c) The inventorship for all the claims in this application are

☒ the same

☐ not the same, and an explanation, including the ownership of the various claims at the time the last claimed invention was made

☐ is submitted

☐ will be submitted

21. Abandonment of Prior Application (if applicable)

- ☐ Please abandon the prior application at a time while the prior application is pending or when the petition for extension of time or to revive in that application is granted and when this application is granted a filing date so as to make this application copending with said prior application.

NOTE: According to the Notice of May 13, 1983 (103, TMOG 6-7) the filing of a continuation or continuation-in-part application is a proper response with respect to a petition for extension of time or a petition to revive and should include the express abandonment of the prior application conditioned upon the granting of the petition and the granting of a filing date to the continuing application.

22. Petition for Suspension of Prosecution for the Time Necessary to File an Amendment

WARNING: "The claims of a new application may be finally rejected in the first Office action in those situations where (1) the new application is a continuing application of, or a substitute for, an earlier application, and (2) all the claims of the new application (a) are drawn to the same invention claimed in the earlier application, and (b) would have been properly finally rejected on the grounds of art of record in the next Office action if they had been entered in the earlier application." MPEP, § 706.07(b).

NOTE: Where it is possible that the claims on file will give rise to a first action final for this continuation application and for some reason an amendment cannot be filed promptly (e.g., experimental data is being gathered) it may be desirable to file a petition for suspension of prosecution for the time necessary.

(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s)
Claimed [4-1.1]—page 3 of 4)

(check the next item, if applicable)

- ☐ There is provided herewith a Petition To Suspend Prosecution for the Time Necessary to File An Amendment (New Application Filed Concurrently)

23. NOTIFICATION IN PARENT APPLICATION OF THIS FILING

- ☐ A notification of the filing of this
(check one of the following)
- ☐ continuation
 - ☒ continuation-in-part
 - ☐ divisional

is being filed in the parent application from which this application claims priority under 35 USC § 120.

(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s)
Claimed [4-1.1]—page 4 of 4)

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) AND 1.27 (b)) - INDEPENDENT INVENTOR**

Docket No.
GC-334

Serial No.

Filing Date

Patent No.

Issue Date

Applicant/ **Darren J. Kady and Deborah A. Kady**
Patentee:

Invention: **Locking Device For Tools And Equipment**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled above and described in:

- ☒ the specification to be filed herewith.
☐ the application identified above.
☐ the patent identified above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern or organization exists.
☐ Each such person, concern or organization is listed below.

***NOTE:** Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities (37 CFR 1.27)

FULL NAME

ADDRESS

☐ Individual☐ Small Business Concern☐ Nonprofit Organization

FULL NAME

ADDRESS

☐ Individual☐ Small Business Concern☐ Nonprofit Organization

FULL NAME

ADDRESS

☐ Individual☐ Small Business Concern☐ Nonprofit Organization

FULL NAME

ADDRESS

☐ Individual☐ Small Business Concern☐ Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.26(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF INVENTOR Darren J. KadySIGNATURE OF INVENTOR Darren J. KadyDATE: 10/22/98NAME OF INVENTOR Deborah A. KadySIGNATURE OF INVENTOR Deborah A. KadyDATE: 10/22/98

NAME OF INVENTOR _____

SIGNATURE OF INVENTOR _____

DATE: _____

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SIGNATURE OF INVENTOR _____

DATE: _____

NAME OF INVENTOR _____

SIGNATURE OF INVENTOR _____

DATE: _____

LOCKING DEVICE FOR TOOLS AND EQUIPMENT

BACKGROUND OF THE INVENTION

Field of the Invention

The device relates to a safety device that, once activated, allows the equipment to run for a preprogrammed period of time. In some embodiments the device is used as a antitheft device without use of the timing mode. The use of an activation code prevents theft and resale of protected equipment.

Brief Description of the Prior Art

Tools offer a temptation to thieves as they are easy to resell due to lack of distinctive features. Further, few people mark their tools as faithfully as they would their stereo equipment. Even tools that have been marked can be sold to an unknowing purchaser prior to police reports being issued and few individuals check for stolen merchandise. The problem also arises in construction companies that tools are stolen from a job site, leading to costly replacements.

SUMMARY OF THE INVENTION

A locking device is disclosed for use on tools, electronic and mechanical equipment, heavy equipment and machinery, gas-powered vehicles and various other wheeled vehicles. The device provides the option of permitting the equipment to be operated for a predetermined period of time.

Electronic circuitry within the device, in conjunction with an unlocking and optional timer operation, requires that the equipment be unlocked prior to use. A time period for operation can be programmed into the equipment, after which time the unit shuts off. This reduces theft as well as preventing unauthorized use of the item.

The operating control device is for use with equipment having an exterior case, a power source, an activation member and a driver member. The control device has an input device to enable the input of user access codes and a readout panel to monitor the status of the equipment. A

1 control member is in communication with the input device, readout panel, power source, driver
2 member and activation member. The control member prevents operation of the equipment by
3 preventing the transfer of power from the power source to the driver member without the entry of a
4 user code. Entry of the user code enables the power to flow from the power source to the activation
5 member to the driver member, thereby activating the equipment. The control device can further
6 include a programmable timer to communicate with the control member thereby enabling the power
7 flow from the power source to the driver member for the predetermined period of time entered at
8 the input device. A clock member can track time and activate and deactivate the timer based on user
9 input. The communication between the control member and the input device, readout panel,
10 power source, driver member and activation member can be through electrical wires that can be
11 encased in a solid material to make the control member and wires inaccessible. The locking device
12 can be use on equipment such as hand tools, electronics or fuel pumps.

13 When used directly on a fuel pump, the control member prevents the fuel pump from
14 enabling fuel to flow from the gas tank to the engine without the input of a proper user code.
15 Alternatively, the control device can be a fuel line shutoff valve to prevent fuel from traveling along
16 the line. A solenoid can be used in the shutoff valve to prevent flow of fuel from the gas tank to the
17 driver. In one embodiment, a solenoid is used to enable fuel to flow from the fuel tank, or power
18 source, to the activation member, or engine.

19 A locking device, encompassed by an exterior case, for use on bicycles interacts with the
20 axle connecting the peddles. A engagement disk, having multiple ports along its circumference, is
21 unmoveably affixed to the axle causing the disk to rotate with the axle. A locking bar, positioned
22 within a brace affixed to the exterior case, engages one of the ports in the engagement disk to
23 prevent rotation of the axle. A locking bar activation member engages and disengages the locking
24 bar with the engagement disk. The locking device can be a manually operated lock, a solenoid

1 having a power source and being activated by an input member. A resetable timer can display the
2 lapsed time on a display panel. A removable access panel permits the user to access the exterior case
3 and locking bar.

4 BRIEF DESCRIPTION OF THE DRAWINGS

5 The advantages of the instant disclosure will become more apparent when read with the
6 specification and the drawings, wherein:

7 FIGURE 1 is a side view of an example hand tool incorporating the locking device;

8 FIGURE 2 is a cutaway view of the interior of the locking arm and solenoid of the instant
9 invention,

10 FIGURE 3 is a top view of an example controller configuration;

11 FIGURE 4 is the schematic of an example wiring for the locking device for use with a
12 hand tool,

13 FIGURE 5 is a cutaway side view of the interior of the hand tool of Figure 1;

14 FIGURE 6 is a cutaway side view of an alternate embodiment of a hand tool utilizing the
15 disclosed locking device;

16 FIGURE 7 is a side view of the instant device for use with a air tool system;

17 FIGURE 8 is a schematic of the wiring for use with the locking device used in conjunction
18 with air tools;

19 FIGURE 9 is a cutaway rear view of the mechanically activated bicycle locking device;

20 FIGURE 10 is a side view of the bicycle locking device of Figure 9 mounted in a bicycle;

21 FIGURE 11 is a top view of the engagement disk for use with the bicycle locking device;

22 FIGURE 12 is a side view of the bicycle locking device of Figure 11 mounted in a bicycle;

23 FIGURE 13 is a cutaway view of the solenoid activated bicycle locking device mounted on
24 a bicycle;

25 FIGURE 14 is an exploded view of the engagement disk and latching solenoid;

FIGURE 15 is a schematic of the wiring for use with electronic devices;

FIGURE 16 is a schematic of the wiring for use with the locking device incorporating the analogue function;

FIGURE 17 is a schematic of the wiring for use with the locking device on mechanical apparatus, such as bicycles;

FIGURE 18 is a side view of a fuel pump containing the solenoid switch;

FIGURE 19 is a perspective view of the control box and shut off valve placed along the fuel line; and

FIGURE 20 is a perspective view of the control box and shut off valve mounted separately.

DETAILED DESCRIPTION OF THE INVENTION

The disclosed invention relates to a coded locking mechanism that discourages theft. In addition to the inherent advantages obtained through the locking device as disclosed, further safety advantages are achieved simply by its existence. It will be obvious to anyone who buys an item containing the locking device that unless the seller has the code, the item is most likely stolen. Most theft of portable items, such as tools, bicycles and electronics, is related to resale of the item.

Generally this resale is through pawn shops, or individuals, who have no way of tracing ownership of the item. The disclosed locking device controls the activation of the item, preventing activation without the entry of user codes. Without access to the codes, the item is useless and unsaleable.

Bicycles have been, to date, difficult to protect against theft. The standard means for securing a bicycle is to chain the frame to a non-movable object. The thief, however, can simply cut the chain and ride the bike away. The disclosed device locks the peddles, thereby preventing the bike from being ridden and requiring a thief to pick the bicycle up and carry it off. The addition of an alarm will further deter the theft of the bike. Except in secluded areas, this would cause far more

1 attention than most thieves are willing to risk. The incorporation of the disclosed device installed on
2 a bicycle is discussed in detail further herein.

3 Gas and diesel powered vehicles, whether automobiles or forklifts, are always in danger of
4 being stolen. Various alarm systems have come out for automobiles, however few have been
5 successful in preventing "hot wiring". The disclosed device attaches to either the fuel line or fuel
6 pump, to prevent fuel from reaching the engine.

7 The locking mechanism can be of a type that does not require the use of a key, or other
8 device, thereby avoiding an additional item to lose or carry. Alternatively, other locking means can
9 be used, such as magnetic card readers, standard keys, telephone signals, infrared code or radio
10 frequency transmitters and receivers, etc. Iris scans, finger printing or other means for registering a
11 user currently known in the art can be incorporated where applicable to the equipment. The touch
12 key scanning technology can easily be incorporated into the device, thereby permitting data relating
13 to the item to be tracked. The scanning technology provides benefits in a laboratory or other setting
14 where equipment is centralized and removed for use. Each employee would have a personalized
15 touch key that records the employee name, time of removal, etc. The disclosed device is easily
16 incorporated into electronic devices, such as televisions, cameras, VCRs, stereo equipment,
17 computers, camcorders, etc. at the time of manufacture. Alternatively the device can be retrofitted
18 into the power source, such as the power cord or plug. The use of microchips, or analog,
19 technology permits various functions to be monitored, such as scheduling service, based on use
20 time or the number of hours an item has been used.

21 When installed on a computer, the disclosed device can be connected directly to the power
22 supply permitting businesses that sell computer time to automatically enter the sleep mode, shut
23 down or otherwise place the computer in a non-active status, unless additional time is purchased.
24 In home use, the device permits parental control on the amount of time, or specific time periods,
25 the computer, or other electronic device such as a TV, can be used by a child. Thus, the computer,

1 VCR or TV could only be activated after homework is completed, etc. The device can be easily
2 modified to either shut down the equipment completely or, as in the case of computers, place the
3 device in the "sleep" or inoperative mode. Computers are especially adaptable to keyboard
4 programming of the device, although a keyboard interface can be included with any of the locking
5 devices disclosed. A program embedded in the device's microchip can allow for a simple timer
6 setting that is activated through key input on the keyboard. As an option, a direct coding key can be
7 incorporated on the keyboard that automatically accesses the program and permits activation,
8 setting changes, etc. Although computer lock out programs are known in the prior art, they totally
9 lock out use of the computer. The disclosed device permits access to the computer for a
10 predetermined period of time either at random or within a specific schedule time period. A
11 warning light is preferably incorporated to permit the user to save data prior to placing the
12 computer in the inactive mode. The user entering the time restraints would set up the program with
13 a user code to prevent unauthorized changes to the program.

14 The disclosed locking device is also advantageous for rental equipment, such as generators,
15 compressors, VCR's, etc., in that the rented equipment can be programmed for a specific period of
16 time and after that point be automatically deactivated. This discourages the theft of rental
17 equipment, thereby reducing insurance and liability, since by preventing unauthorized use, especially
18 when used in conjunction with larger equipment, insurance rates would potentially be reduced.

19 In electronic equipment, such as TVs, VCRs, etc. containing infra red remote controllers,
20 the timing activation device can be activated through the remote controller. Once activated the
21 program would appear on the screen and utilize either existing or specific keys to set the shut down
22 time, user time periods, etc. This would be an inexpensive addition to a controller and increase
23 user convenience. Alternatively the controller itself can be used to set the time of use, without the
24 appearance of the setting program on the screen.

1 It should be noted that the use of analogue, key scanners, infra red, etc. taught herein for
2 use by a specific embodiment, is not limited to that embodiment. Each embodiment of the locking
3 device disclosed herein can incorporate the electronics, memory, etc. as described herein in relation
4 to any other embodiment.

5 A hand drill, as illustrated in Figures 1 and 2, is used to illustrate the disclosed mechanism
6 used to limit user time, however this is as an example only and is not intended to limit the
7 invention. In order to facilitate the description of the embodiments herein, the recipient of the
8 power received will be referred to herein as the driver. The power tool 10 is illustrated in Figure 1
9 ready for use, incorporating a numeric keypad 12 as the locking mechanism. Other activating
10 mechanisms will be apparent to those skilled in the art when read in conjunction with the
11 disclosure. As stated heretofore, in many applications advantages are provided by not having an
12 additional device to activate the tool. However, in some residential and commercial applications, the
13 separate activation device can be desirable. It is preferable when using this embodiment to protect
14 devices owned by the user, that the use be on a timed basis rather than an on-off basis. Forgetting
15 to the turn off access to the device would negate the advantages to the disclosed locking device.
16 This is overcome by incorporating a timer that deactivates the equipment after a preset period of
17 non-use, requiring reactivation through the appropriate method. The lapsed period of time can be
18 factory set or programmed in by the user.

19 The time can be set through any means appropriate to the equipment being used as well as
20 the final use. For example, the time can be through repeatedly touching a specific key, jumping the
21 time by predetermined increments. Alternatively, an "enter" key can be provided which allows entry
22 of the unlocking code and subsequent entry of a predetermined period of time. Preferably all timed
23 locking devices are provided with nonvolatile memory to prevent the loss of programmed
24 instructions in the event the item's battery goes dead or is removed. This is more critical with
25 rechargeable hand tools where completely discharging the battery is sometimes required to fully

1 recharge. On larger items, such as construction equipment or generators, a cellular dial in can be
2 included to allow the addition of time to be accomplished remotely from the owner's location. A
3 microphone can be added to the locking device to receive, and register, a code consisting of
4 telephone touch tones to extend the operation time. Various other methods can also be used, and
5 these methods will be evident to those skilled in the art.

6 The locking code can be factory set and the code numbers provided at time of purchase.
7 Alternatively, the locking code can be reprogrammable either by the user or by a factory
8 representative. The reprogrammable feature enables the code to be changed when required, such as
9 sale of the tool. The device can be capable of being reprogrammed more than one time, however,
10 the number of reprogrammings allowed, and the party performing the reprogramming, all affects
11 the security of the device. For maximum security, while still allowing reprogramming, the device is
12 provided with only one or two opportunities to reprogram the code and the reprogramming would
13 be completed at a service center. In the optimum configuration, other readings are also provided
14 that would be critical to the operation of the device. The incorporation of a microchip to register
15 the locking codes and program the activation time further provides the added ability to monitor
16 various other tool functions. For example, an LED display 14 of Figure 1 can be included which
17 indicates the activation time remaining and, if desired, the current status of the tool. The status can
18 include, for example, current battery power (both during recharge and discharge), pressure
19 remaining when air tools are used, rpm and direction of drills, etc. This is of optimum use in
20 monitoring the status of rechargeable batteries. Since many rechargeable batteries do not either fully
21 charge unless fully discharged prior to recharging, the battery monitoring device permits optimum
22 use and management of the battery. It should also be noted that an LED could be provided on the
23 recharging device to monitor the battery recharge thereby serving as a double check to the LED on
24 the device being charged.

1 In Figure 2 one design of the internal activation unit 40 is illustrated. The locking arm 48 is
2 supported between the upper case side 42 and the lower case side 44. The spring tension 50 is
3 designed to place the solenoid contact 56 in physical contact with the solenoid 52 when the locking
4 arm 48 is pulled back during use. Once the locking arm 48 is released, the solenoid contact 56 is
5 removed from contact with the solenoid 52. The solenoid 52 receives power from the battery 108
6 (Figure 5) through the controller 80, an example of which is illustrated in more detail in Figure 3.
7 As can be seen from the example schematic of Figure 4, the controller 80 serves as the central
8 processing area, with all input and output passing through the controller 80. The controller 80 is
9 connected directly to the locking mechanism, such as a numeric keypad 12, through the keypad
10 wiring 100. The battery wiring 102 and motor wiring 104 also feed into the controller 80. Once the
11 locking means, such as numeric keypad 12, is activated, all connections are made and power is free
12 to go to the driver specific to the power tool 10. The exact schematic of the wiring is not critical, as
13 the criticality lies with in the interaction between the locking means and the controller 80. The
14 interior of the hand tool 10, as shown in Figure 5, is traditionally spaced, with the controller 80
15 located within the handle area. In this embodiment, the various connecting wires 100, 102 and 104
16 are exposed and, in the event of theft, the case can be opened and the wires cut and crossed to
17 bypass the controller 80. In order to prevent a thief from opening the case and by passing the
18 controller 80, the case is provided with a safety lock key having a number of different
19 embodiments. One embodiment is to incorporate a locking member, wired to the controller
20 through the locking wire 156, that is deactivated by a locking code, key or other compatible
21 methods. The controller 80 can be programmed to allow the case to release, for example through a
22 separate code being entered or by holding down the last number of the existing code for a
23 predetermined time period. A separate code is preferable in that it prevents any unauthorized
24 access to the interior of the case. For maximum security, the safety lock key would be available only
25 to certified dealers and service companies for the specific brand or obtained directly from the dealer

1 by mail, etc. By providing the safety lock key, if the tool was stolen and tampered with for sale or
2 pawn, the by-pass would be apparent due to the broken casing.

3 In an alternative embodiment to the safety lock key, the solenoid 126 and wiring 122 are
4 encased in an epoxy, indicated herein as region 128, as illustrated in Figure 6. By encasing the
5 wiring 122 within the epoxy, it is impossible to rewire the unit and bypass the controller 124. Other
6 materials, known in the art, can be used to replace the epoxy. To facilitate the placement of the
7 epoxy region 128, the wiring 122 from the motor 120 exits the motor casing proximate the
8 controller 124, which has been placed as close as possible to the solenoid 126. This revised
9 placement reduces the area to be protected, thereby reducing material and labor costs. Revising the
10 placement of the battery 130 is difficult, preventing in some instances the battery wiring 132 from
11 being covered. However, with the controller 124 and solenoid 126 both encased in epoxy, there
12 would be no value to cutting the battery wire 132, as there would not be any accessible power
13 connections.

14 In Figure 7, the locking device is illustrated being used with an air tool 200, although it
15 should be noted that the device can also be used with propane, gas, and diesel tools and equipment.
16 This embodiment is additionally applicable for use with electric tools and equipment having a
17 power cord. The controller unit 202, as illustrated, is located in the handle 204 of the air tool.
18 Due to the spread out nature of the air tools, the use of a safety key lock is, in some instances, more
19 practical than redesigning the interior of the unit to allow the wiring to be embedded in epoxy. This
20 is a choice of the manufacturer based on cost, specific tool, etc. As can be seen in the example
21 schematics of Figure 4 (battery) and Figure 8 (air tool) there is little difference in wiring between the
22 two. As stated, in the schematic of Figure 4 the touch key wiring 100 goes to the controller 80, as
23 does the battery wire 102 and the motor wire 104. In the air tool, or other removed power source,
24 the touch key wiring 150 and solenoid 154 wiring feed into the controller 152 and onto the driver,
25 the battery and motor connections being eliminated.

1 As stated heretofore, the disclosed device can be easily incorporated with electronic
2 equipment. The schematic of Figure 15 is an example of the electronics for a device being
3 incorporated into a computer, VCR, television, etc. As can be seen, the basic functioning of the
4 antitheft device is the same as used for a battery or air tool. As in the schematics disclosed
5 heretofore, the touch key wiring 302 feeds into the controller 304. In this embodiment, however,
6 the electric wiring 306 is connected to the controller 304 through the latching relay wires 308. The
7 schematic of Figure 16 provides an example of the electronic layout, disclosed in Figure 15, to
8 incorporate the analogue function into the device through analog wiring 350.

9 One use of the disclosed invention is in commercial industries with workers using company
10 owned tools and equipment. The tools are activated in the morning to run for an entire shift, at
11 which point they shut down. This prevents theft from outside sources as well as employees.
12 Additionally by reactivating the tools each morning, a "safety check" can be incorporated with the
13 activation to prevent faulty equipment from being used.

14 The locking device can further be used with bicycles, shopping carts, wheelchairs, etc. It
15 should be noted, however, that since the locking devices disclosed herein operate on bicycles by
16 stopping movement of the pedals, this device is not recommended for bikes, or other items that
17 have foot brakes. In the event, that the device was activated during use, the user would be unable to
18 activate the brakes. The example used herein is a bicycle, however the device, as disclosed, can
19 easily be adapted for a variety of other wheeled devices. The locking device for use with bicycles, or
20 other applicable devices, preferably has a weight of about one (1) pound or less

21 Figures 9, 10 and 11 illustrate a manual version of the locking device 200 for use with
22 wheeled vehicles and is illustrated on a bicycle. The locking mechanisms within the locking device
23 are located within a protective case 202 to prevent tampering. The case 202 is welded to the front
24 frame 230 and rear frame 232 as currently done in the art replacing the standard joint at the

1 junction of the front and rear supports. The case 202 is slightly larger than standard cases to
2 accommodate the locking device 200. The pedal axle 204 passes through the case 202 and is
3 attached to the pedals 236 as known in the art. The engagement disk 208 has a centered receiving
4 hole 220 that permits the disk 208 to be mounted on the axle 204. The disk 208 is welded to the
5 axle 204 to cause the disk 208 to rotate with the axle 204 as the bicycle is pedaled. The disk 208
6 contains a series of receiving holes 222 around its periphery. The receiving holes 222 are
7 dimensioned to receive the locking bar 210 that has been encased in the locking brace 216. The
8 locking brace 216 is secured to the case 202 to prevent movement of the bar 210 and therefore
9 movement of the pedals 236 once the bar 210 is in the locked position. When in the unlocked
10 position, the locking bar 210 is drawn into the locking brace 216. Once placed into the locked
11 position, the bar 210 engages the receiving holes 222 of the disk 208 and prevents the pedals 236
12 from turning. The locking brace 216 must be securely affixed to the case 202 to prevent the brace
13 216 from dislodging when a user attempts to pedal during the locked mode. Additionally, the
14 locking bar 210 must have sufficient strength to prevent the bar 210 from snapping or bending. In
15 the embodiment of Figure 9 the bar 210 is placed into either the locked or unlocked position by a
16 key lock 206, or other mechanically operated device. The interior mechanisms moving the locking
17 bar 210 in response to the key lock 206 are like those of dead bolts for doors and other methods
18 will be known to those skilled in the art.

19 To provide the ability to repair the locking device in the event a problem arises; a bottom
20 plate 214 is incorporated into the locking device 200. The bottom plate 214 illustrated has a rotating
21 lock 212 that is secured to a locking plate 220. The flanges 218 extend into the open area of the
22 case 202 and provide support for the locking plate 220 when rotated to the locked position.
23 Rotation of the rotating lock 212 moves the locking plate 220 into a position to clear the flanges,
24 thereby permitting removal of the bottom plate 214. The locking mechanism for the bottom plate is

1 an example of a method for locking the bottom plate onto the case and other methods known in the
2 art can be used.

3 An automatic embodiment of the locking mechanism for use with bicycles is illustrated in
4 Figures 12 – 14. The engagement disk 308 is welded to the pedal axle 324 as described heretofore.
5 Rather than the manual lock of Figure 9, the interacting locking bar 326 is operated by a
6 battery-powered solenoid 304. The solenoid 304 is maintained in position through use of a casing
7 306 that is securely affixed to the outer case 302. As stated heretofore, the locking bar 326 must be
8 capable of withstanding the pressure exerted by a person attempting to pedal the bike. The batteries
9 340 to power the solenoid 304 can be contained within the front support 342 or other location
10 convenient for manufacture. The use of a battery-powered solenoid also permits the use of a timer
11 as disclosed for use with the hand tool of Figure 1. The analogue timer is advantageous for
12 companies renting bikes by the hour or day as the timer can be activated upon the bike being
13 removed from the shop and the time read and calculated upon return. The timer readout, entry
14 method, etc., can be incorporated in either the front support 342 or back support 344.

15 The base plate 312 uses an alternate design to the embodiment of Figure 9. In this
16 embodiment, the base plate 312 is provided with a key lock 314 that is attached to dual rotating
17 bars 320 and 322. The sides of the case 302 are provided with flange pairs 318 and 316 that are
18 dimensioned to interact with the rotating bars 320 and 322. Thus, as the key lock 314 is turned, the
19 bars 320 and 322 move out of their interaction with the flange pairs 318 and 316, thereby releasing
20 the base plate 312.

21 The disclosed device is applicable for use with any gas powered vehicles, from heavy
22 equipment, such as fork lifts, bull dosers, automobiles or boats. The locking device is not
23 compatible with the electronic starter system of the newer equipment and is too easily by-passed.
24 The device is, instead, placed along the fuel line cutting off the supply of fuel to the engine or,
25 alternatively, placed on the exterior or in the casing of the fuel pump. The fuel pump and/or line is

1 not readily accessible, thereby preventing the locking device from being either removed or "hot
2 wired". Due to safety concerns, the timed shutoff feature would not be included on all vehicle
3 applications, such as automobiles or boats, however in some instances, such as boat rentals, the
4 time-lapsed feature would be beneficial.

5 The disclosed security device 482 is illustrated in Figure 18 in conjunction with a fuel
6 pump 480. The security device 482 is activated, or deactivated, by touch key, infra red, manual key,
7 etc. The exact activation/deactivation method would be dependent upon the type of vehicle, end
8 use and cost considerations. For a new personal automobile, the security device 482 could be
9 activated/deactivated as part of the infra red door lock system. Therefore, when the doors are
10 locked, using the remote infra red pad, the security device 482 would shut off power to the fuel
11 pump 480. When the doors are unlocked, the power would be restored to the fuel pump 480.
12 Alternatively, a touch key can be used to activate/deactivate the security device 482. The receiving
13 portion of the touch key can be placed within the car and the transmitting portion affixed to a key
14 ring. Thus, the user would deactivate the security device 482 upon leaving the car and reactivate the
15 power to the fuel pump 480 upon returning. The ability of the touch keys to be programmed would
16 allow only certain users to activate the device 482.

17 The security device 482 uses the sample electronics as illustrated in Figure 4, although
18 other methods will be obvious to those skilled in the art. The power leads 486 are placed directly
19 into the security device 482. Power is then directed from the security device 482 to the fuel pump
20 480 through leads 484. Preferably the security device 482 and fuel pump 480 are encased as one
21 unit to avoid overriding the security system.

22 In Figure 19 fuel line shutoff system 500, control box 504, is in physical proximity to the
23 shut off valve 502. The shut off valve 502 is preferably an explosion proof solenoid valve, such as
24 manufactured by Asco and identified as EF8262/8263. These, or alternate valves meeting the safety
25 criteria and having the ability to block fuel flow, are mounted directly onto the fuel line 506 to

1 control the fuel flow to the engine. The control box 504 provides the electronics to direct the valve
2 502 to open or close the fuel line 506. The control box 504 can receive signals to activate or
3 deactivate fuel flow through any of the disclosed methods as well as those known in the art.

4 In Figure 20 the control box 524 is separated from the shutoff valve 520. The valve 520 is
5 mounted directly on the fuel line 522 and meets the criteria disclosed in Figure 19. The control box
6 524 is connected to the valve 520 through use of power leads 526, thereby permitting the control
7 box 524 to be spaced a desired distance from the valve 520. The control box 524 receives power
8 from the battery, or independent power source, through the power lead 528.

9 Any of the foregoing embodiments can be connected to an indicator light within the
10 vehicle to notify the user that the fuel line is either activated or deactivated. Additionally, the
11 disclosed fuel shut off devices can be retrofitted onto the gas vehicle by a mechanic. In the event
12 that infra red activation/deactivation is desired, a sensor and corresponding pad can be easily
13 installed in the vehicle. The solenoid can also be incorporated with the timing device to block the
14 fuel supply on a timed basis, however user safety must be considered prior to shutting down the
15 fuel supply to a moving vehicle. The timer can be used to prevent a gas powered vehicle from
16 being used during a certain period.

17 The locking device disclosed herein, whether used on hand tools or heavy equipment, can
18 be used in either a timer mode and/or a security device. In instances where the time used is not an
19 issue and the owner is merely looking to prevent theft of the equipment, the device serves as a
20 security measure

21 Since other modifications and changes varied to fit particular operating requirements and
22 environments will be apparent to those skilled in the art, the invention is not considered limited to

- 1 the example chosen for the purposes of disclosure, and covers all changes and modifications that do
- 2 not constitute departures from the true spirit and scope of this invention.

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1 What is Claimed is:

2 1. An operating control device for use with equipment having an exterior case, a power
3 source, an activation member and a driver member, said control device having:
4 an input device, said input device permitting input of user identification;
5 a control member, said control member being in communication with said input device,
6 said power source, said driver member and said activation member,
7 wherein said control member prevents operation of said equipment by preventing power to
8 transfer from said power source to said driver member without entry of said user code, entry of said
9 user code enabling power to flow from said power source to said activation member to said driver
10 member, thereby activating said equipment.

11 2. The operating control device of claim 1 further comprising a readout panel, said readout
12 panel providing a status of said operating control device and being in communication with said
13 control member.

14 3. The operating control device of claim 1 wherein said control device further comprises a
15 programmable timer, said timer communicating with said control member and enabling power to
16 flow from said power source to said driver member for a predetermined period of time, said
17 predetermined period of time being entered at said input device.

18 4. The operating control device of claim 3 further comprising a clock member, said clock
19 member activating and deactivating said timer based on user input.

20 5. The operating control device of claim 1 wherein said communication is by electrical wires

21 6. The operating control device of claim 5 wherein said control member and said wires are
22 encased in a solid material, thereby making said control member and said wires inaccessible.

23 7. The operating control device of claim 1 wherein said equipment is a hand tool.

24 8. The operating control device of claim 1 wherein said equipment is electronic.

1 9. The operating control device of claim 8 wherein said electronic equipment is a fuel pump,
2 said control member preventing said fuel pump from enabling fuel to flow from a gas tank to an
3 engine.

4 10. The operating control device of claim 8 wherein said electronic equipment is a fuel line
5 shutoff valve, said activation member in said shutoff valve being a solenoid to prevent flow of fuel
6 from a gas tank to said driver member.

7 11. The operating control device of claim 1 wherein said control device further comprises a
8 delay timer, said delay timer communicating with said control member to notify said control
9 member of inactivation of said driver member for a predetermined period of time, wherein said
10 control member prevents further transfer of power from said power source to said driver member
11 until entry of said user code.

12 12. The operating control device of claim 1 further comprising a locking device for said
13 exterior case, said locking device preventing nonuser access to said control device.

14 13. The operating control device of claim 1 further comprising a solenoid, said solenoid
15 connecting said activation member to said power source.

16 14. A locking device for use on bicycles having a pair of peddles connected by an axle, said
17 locking device having

18 an exterior case, said exterior case encompassing said axle;

19 an engagement disk, said engagement disk having multiple ports along its circumference
20 and being unmoveably affixed to said axle causing said disk to rotate with said axle;

21 a brace, said brace being affixed to said exterior case;

22 a locking bar, said locking bar being positioned within said brace to permit said locking bar
23 to engage one of said ports in said engagement disk to prevent rotation of said axle,

24 locking bar activation member, said activation member engaging and disengaging said
25 locking bar with said engagement disk.

1 15. The locking device of claim 14 wherein said activation member is a manually operated lock.

2 16. The locking device of claim 14 wherein said activation member is a solenoid, said solenoid
3 having a power source and being activated by an input member.

4 17. The locking device of claim 14 further comprising a resettable timer, said timer displaying
5 lapsed time on a display panel.

6 18. The locking device of claim 14 further comprising a removable access panel, said
7 removable access panel permitting user access to said exterior case and therefore said locking bar.

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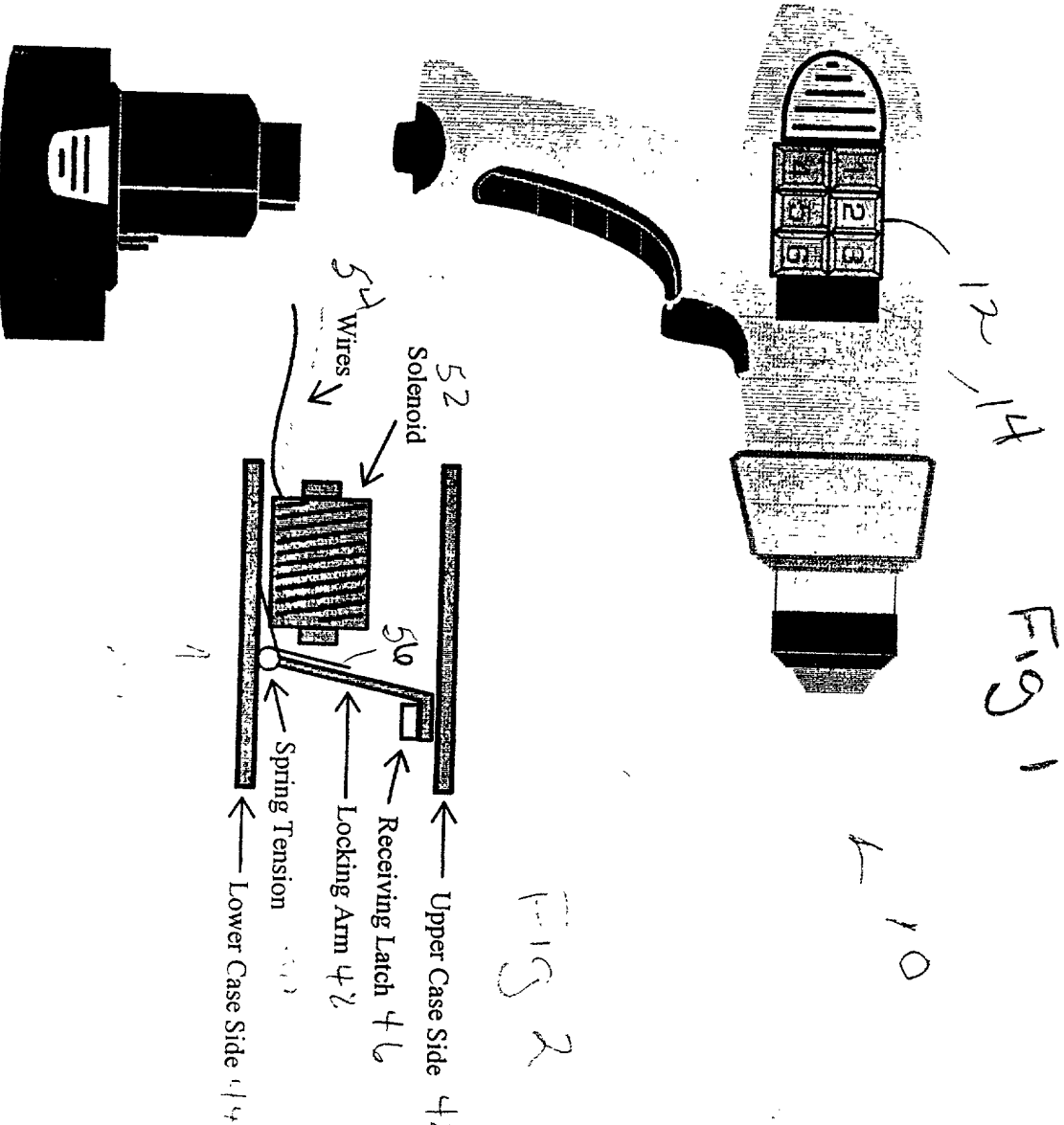
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11. 4

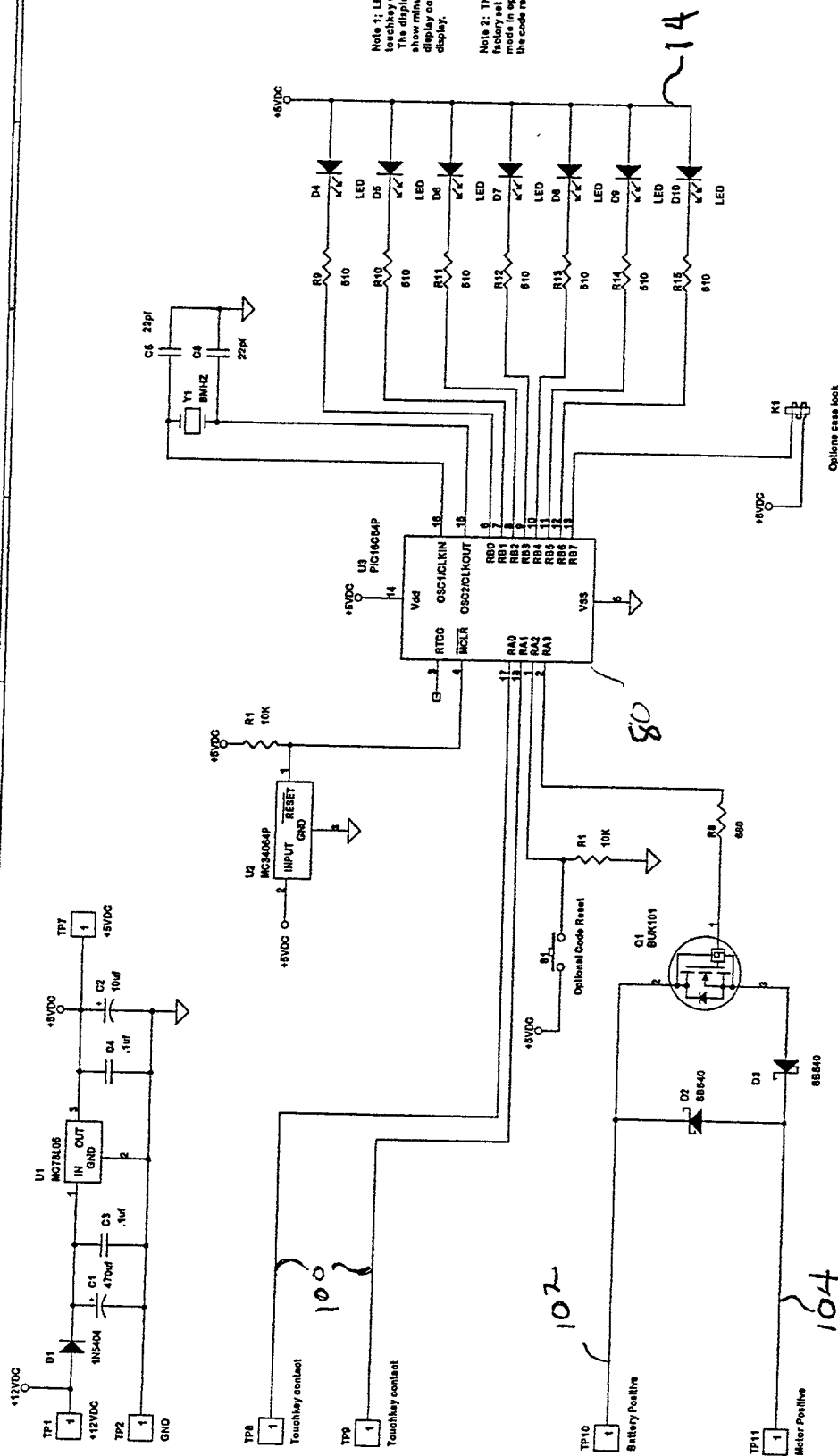
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Friday, September 05, 1997



Note 1: LED display flashes on after touchkey with the proper code is applied. The display may be programmed to show minutes, hours, or days. The display could be replaced by a LCD display.

Note 2: The serial number code may be factory set in option 1, or a set time to mode in option 2, or reprogrammable in the code reset button.

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Size 8	Document Number	Sheet 1
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Date	Thursday, September 04, 1997	

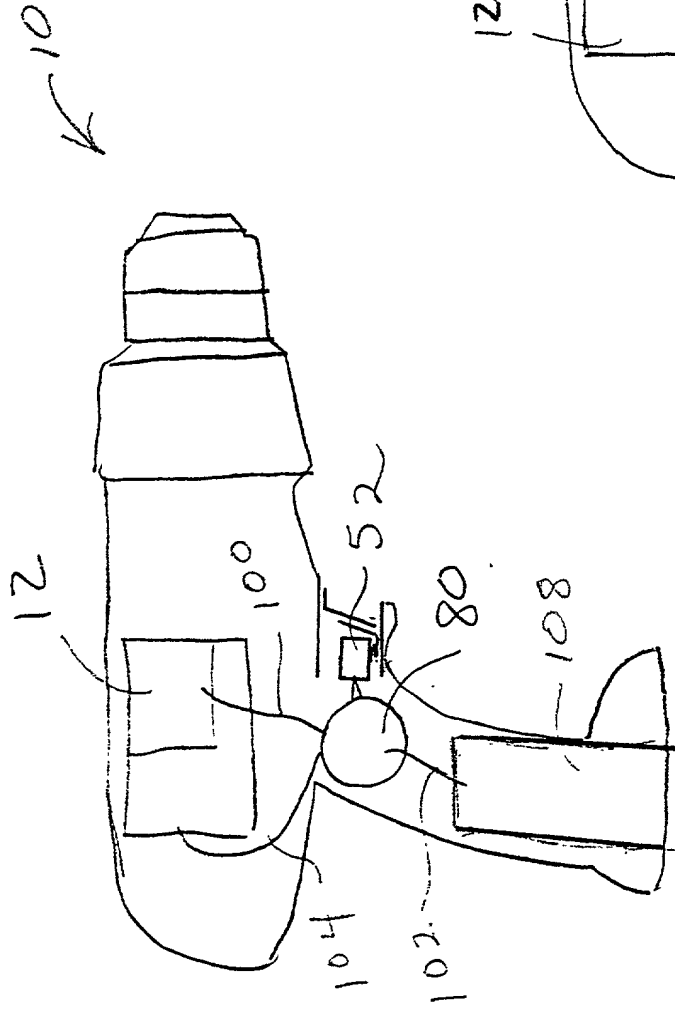


Fig 5

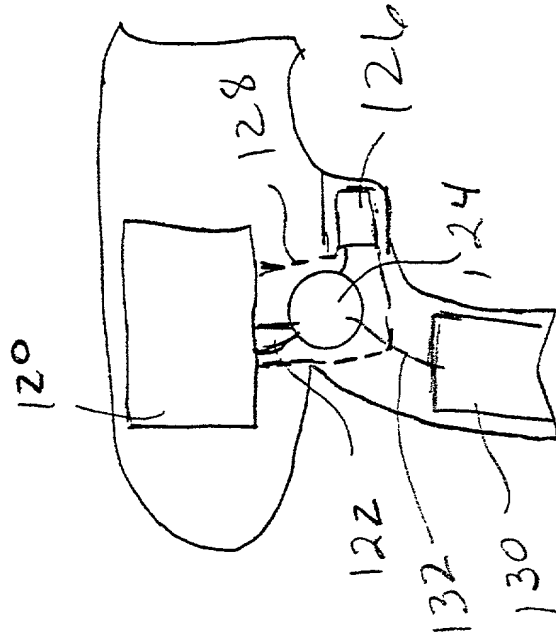
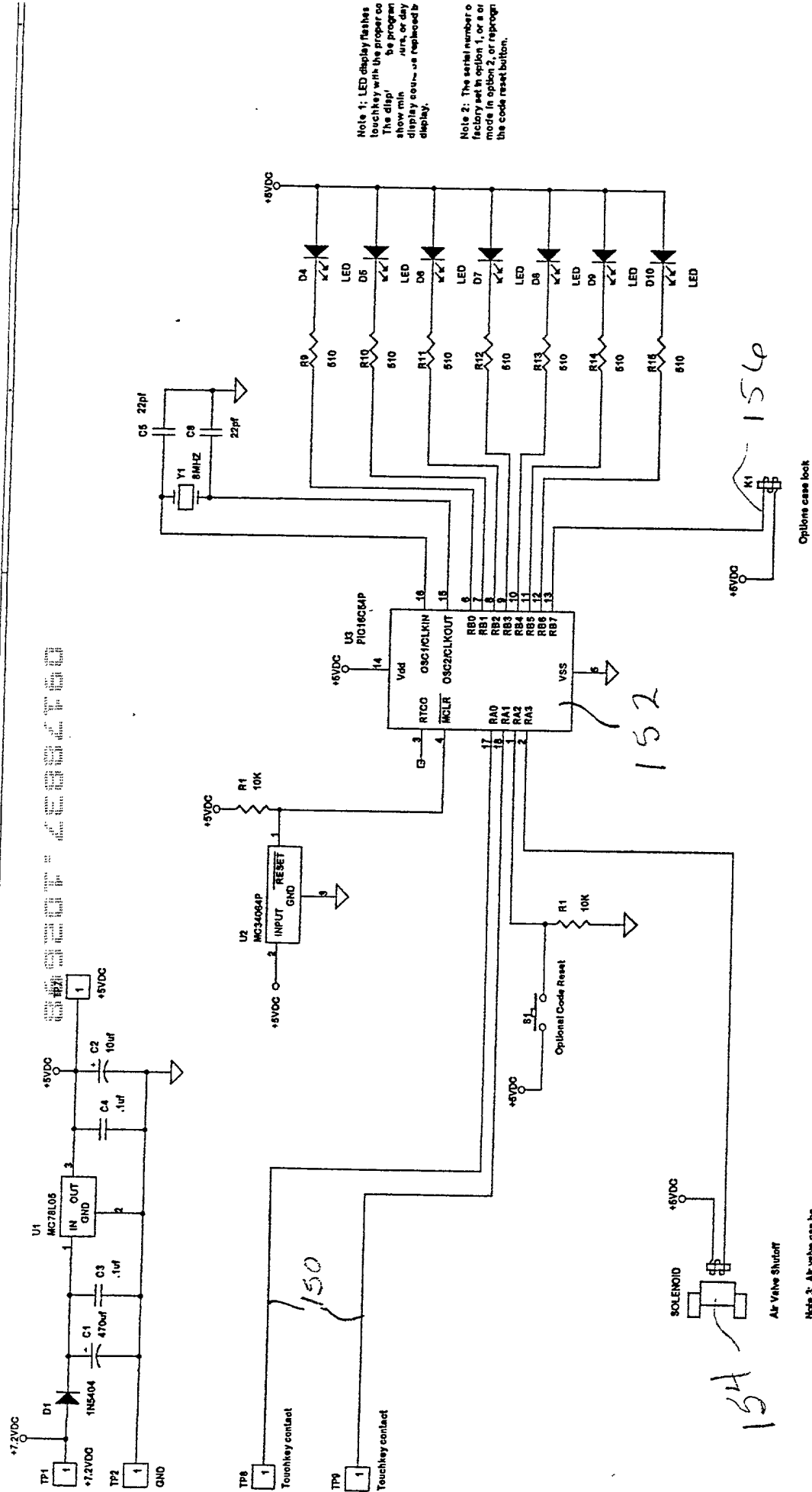


Fig 6



Note 1: LED display flashes touchkey with the proper code. The display will be programmed to show minutes, hours, or day display counts as replaced by display.

Note 2: The serial number or factory set in option 1, or a mode in option 2, or reprogram the code reset button.

Options case book

Note 3: Air valve can be switching on/off or single side stable.

$$\frac{\infty}{\sqrt{1-\frac{1}{2}}}$$

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Anti-theft and safety lock

Size	Document Number
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Controller

Date Friday, September 05, 1997

Sheet

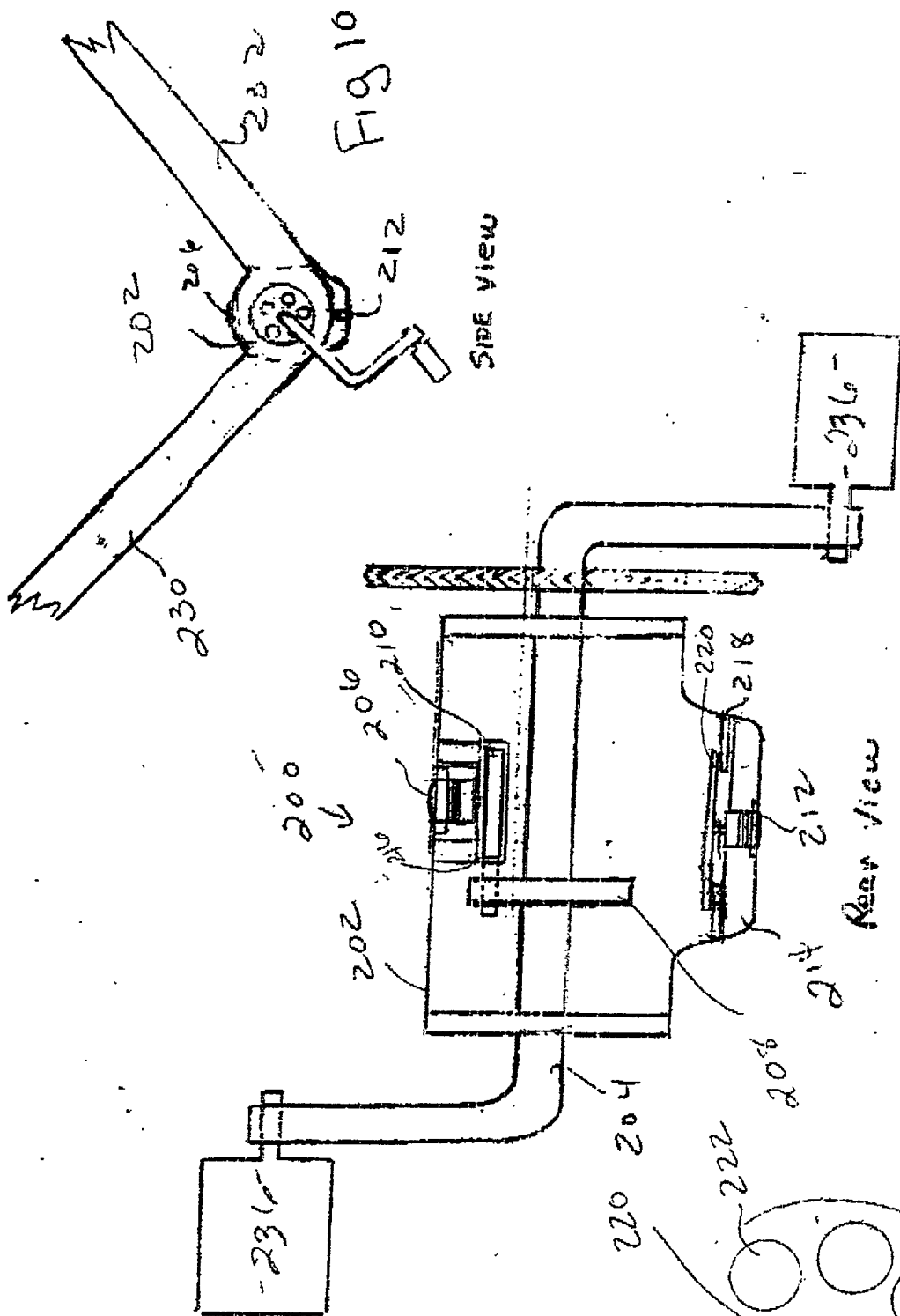


Fig 9

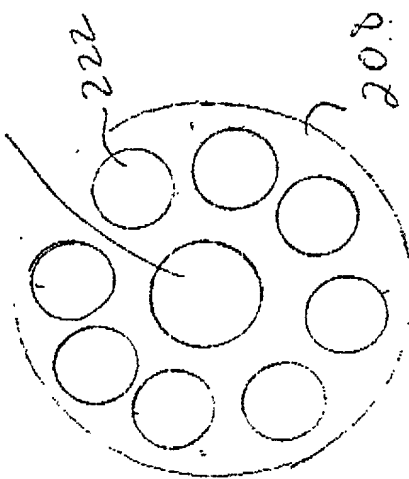


Fig 11

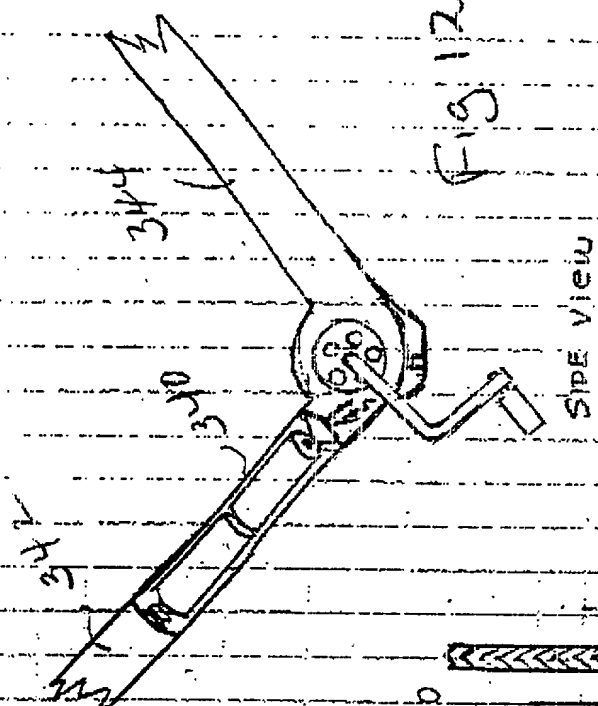


Fig. 12

Side View

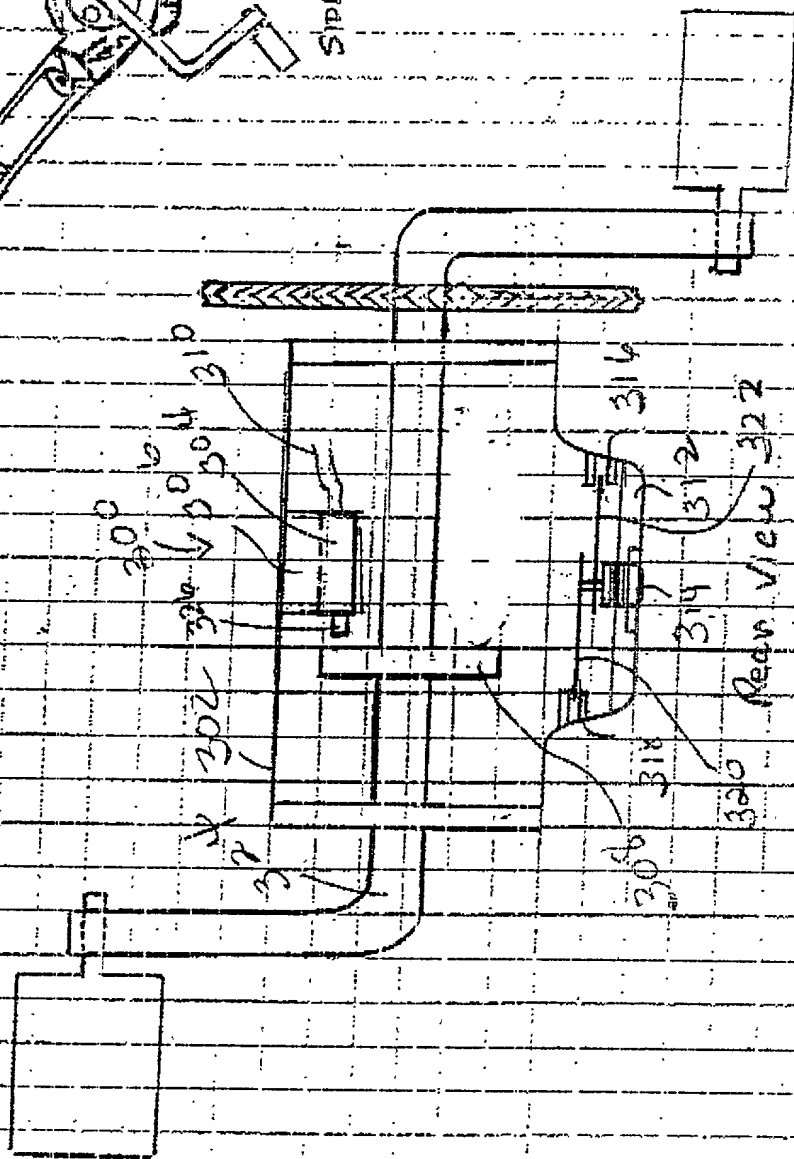
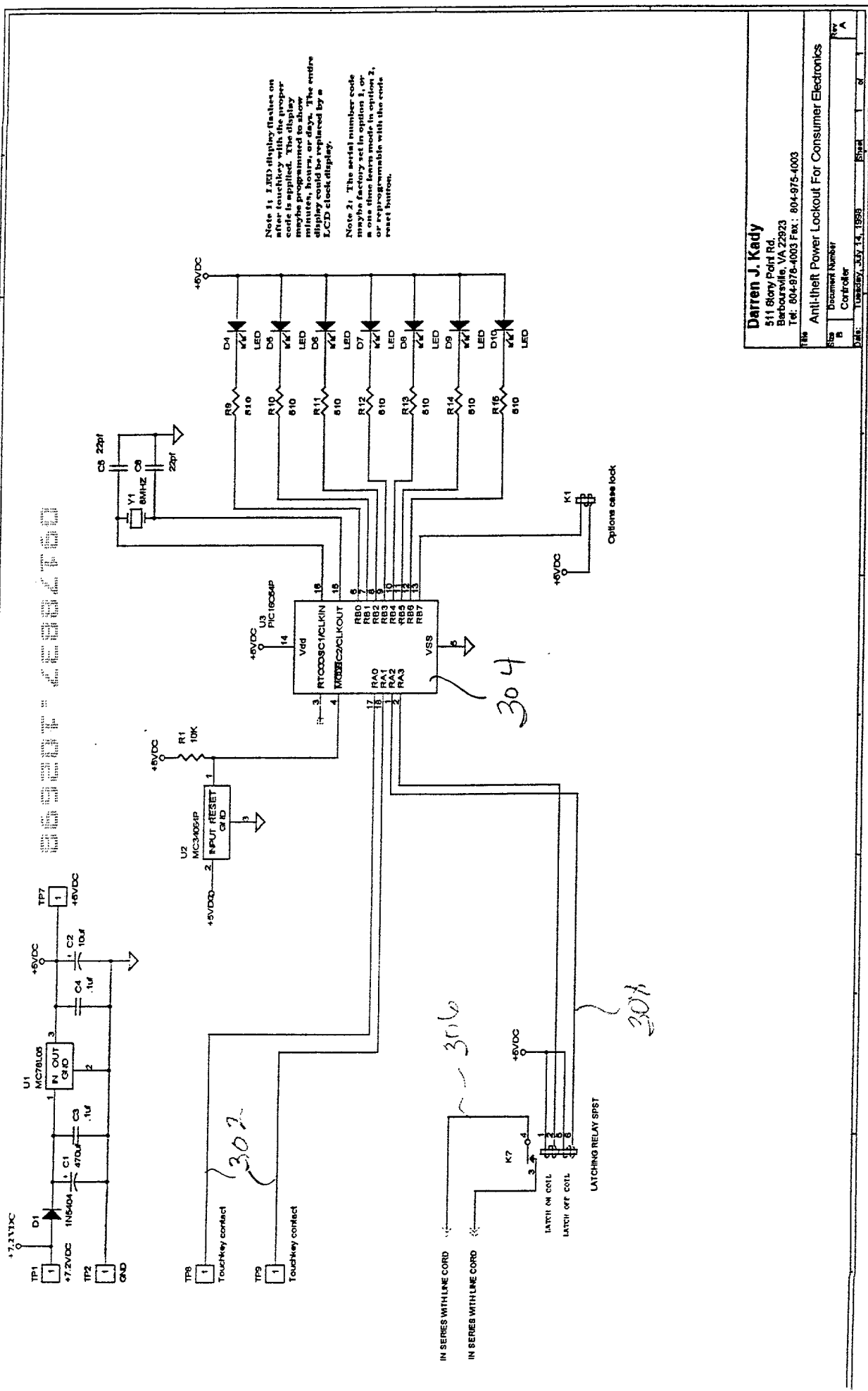


Fig. 13

Rear View



Note 1: LCD display flashes on after touchkey with the proper code is applied. The display is programmed to allow minutes to be set. The entire display could be replaced by a LCD clock display.

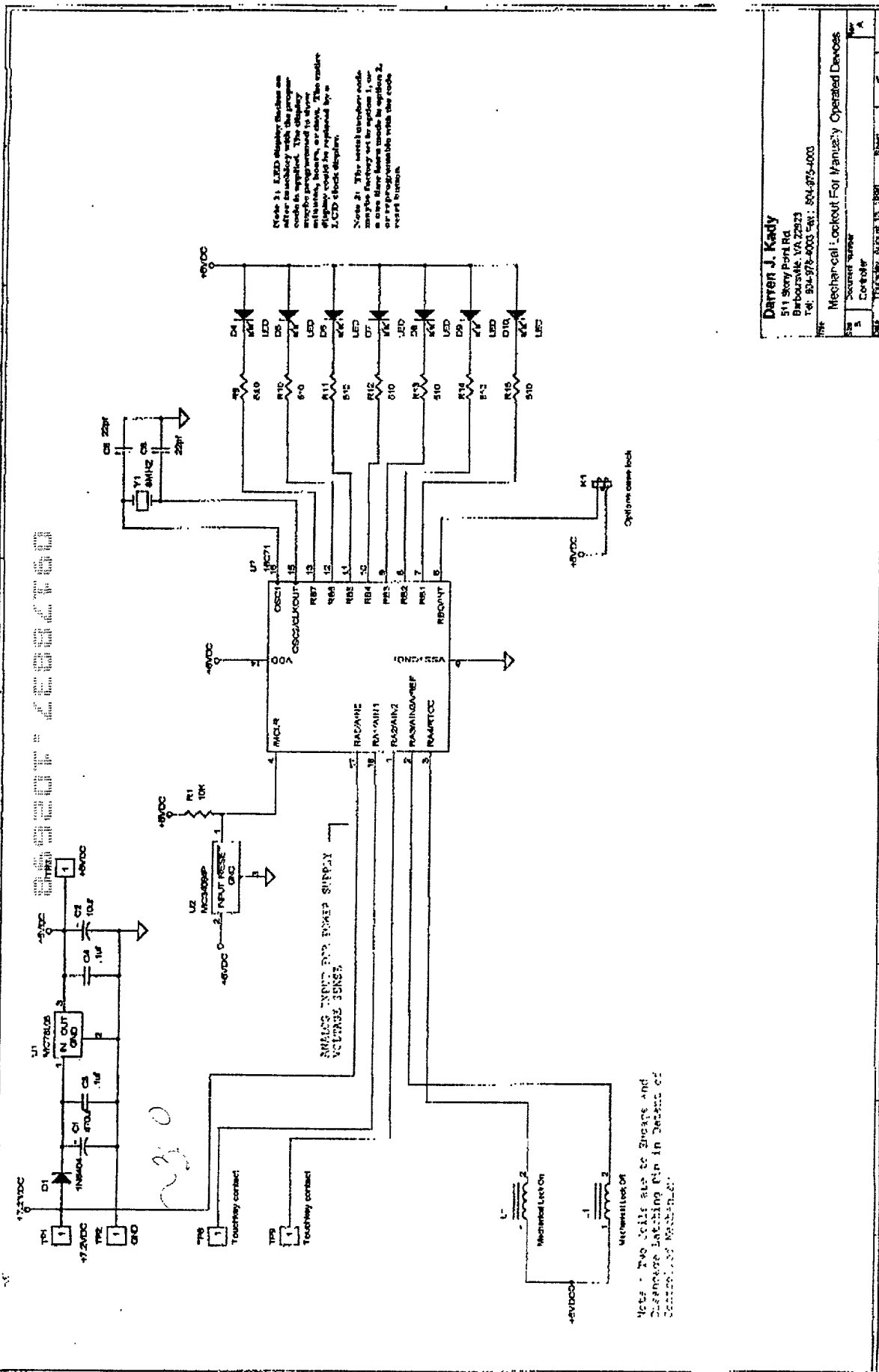
Note 2: The serial number code may be factory set in option 1, or a one time ferris mode in option 2, or reprogrammable with the code reset button.

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Anti-theft Power Lockout For Consumer Electronics

Size	Document Number	Rev
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FIG. 15



516

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Mechanical Lockout For Manually Operated Devices

APR 19 1964

Control

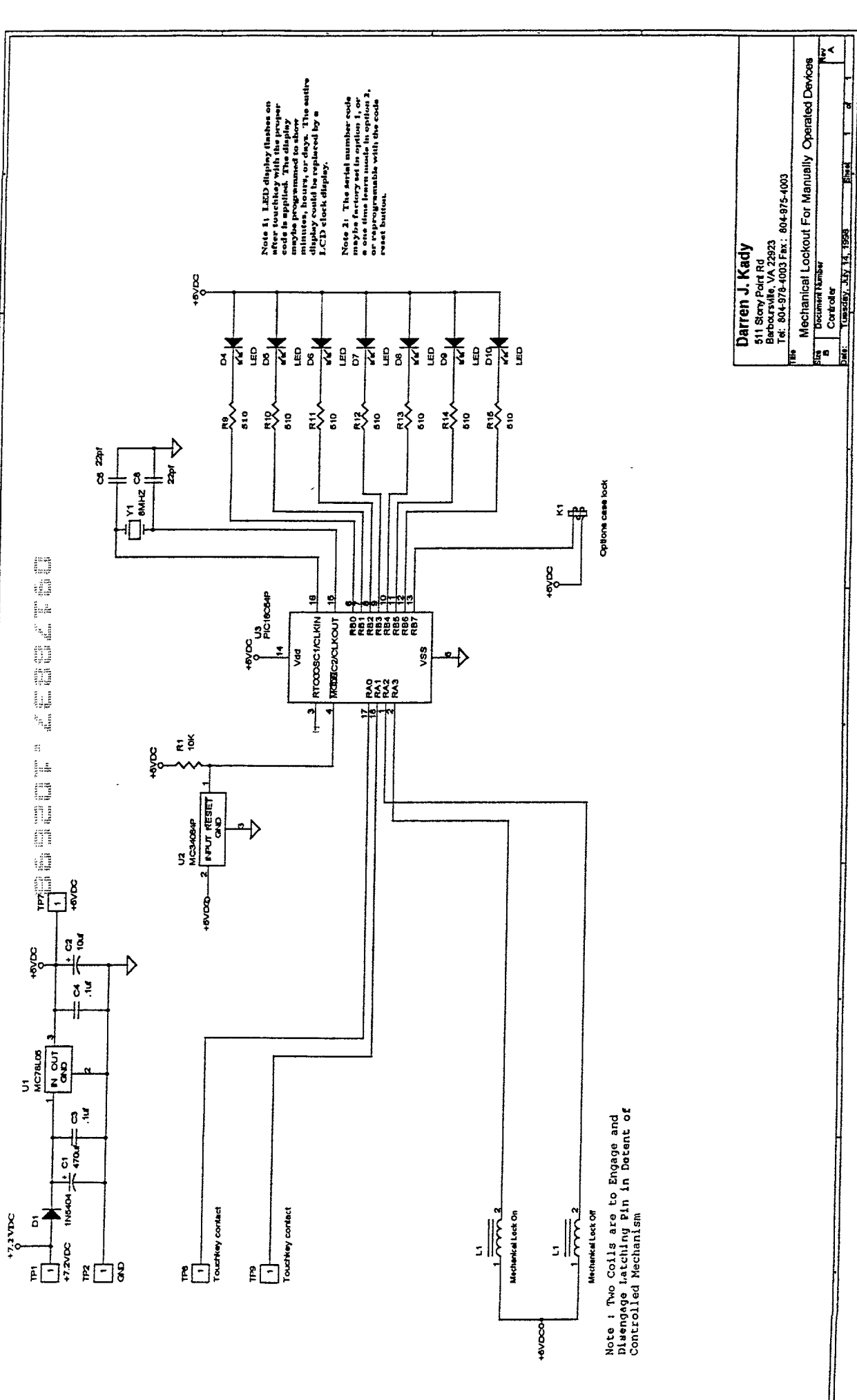
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Note 1: LED display flashes on after touch. The display may be programmed to show minutes, hours, or days. The entire display could be replaced by a LCD clock display.

Note 2: The serial number code maybe factory set to option 1, or the code may be made to option 2, or replaceable with the code reset button.

Note: Two Coils are to Engage and Disengage Latching Pin in Detent of Controlled Mechanism

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This Mechanical Lockout For Manually Operated Devices

Size	Document Number	Rev
A	Controller	A

Date: Tuesday, July 14, 1998

Fig 17

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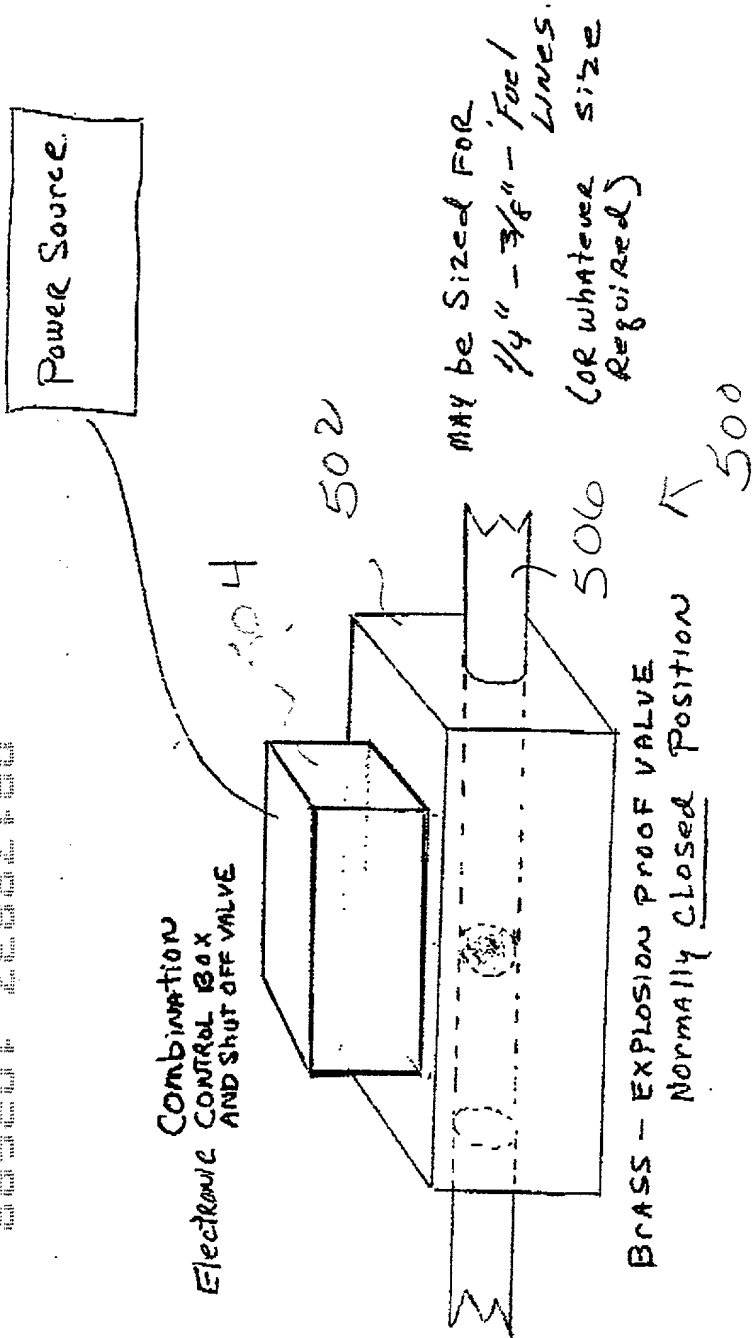


Fig 19

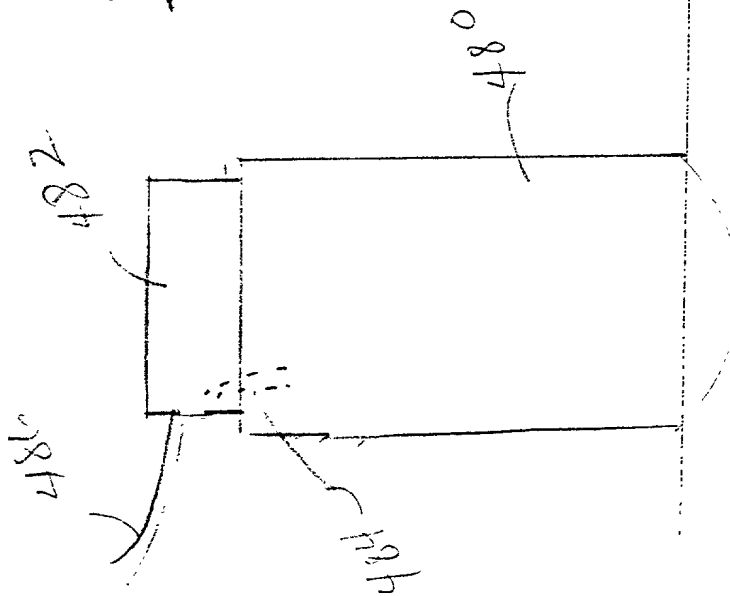


Fig 18

1. CONTROL BOX MAY BE CONTROLLED BY INFA RED
2. SHUT OFF VALVE REMAINS SHUT TILL POWERED.

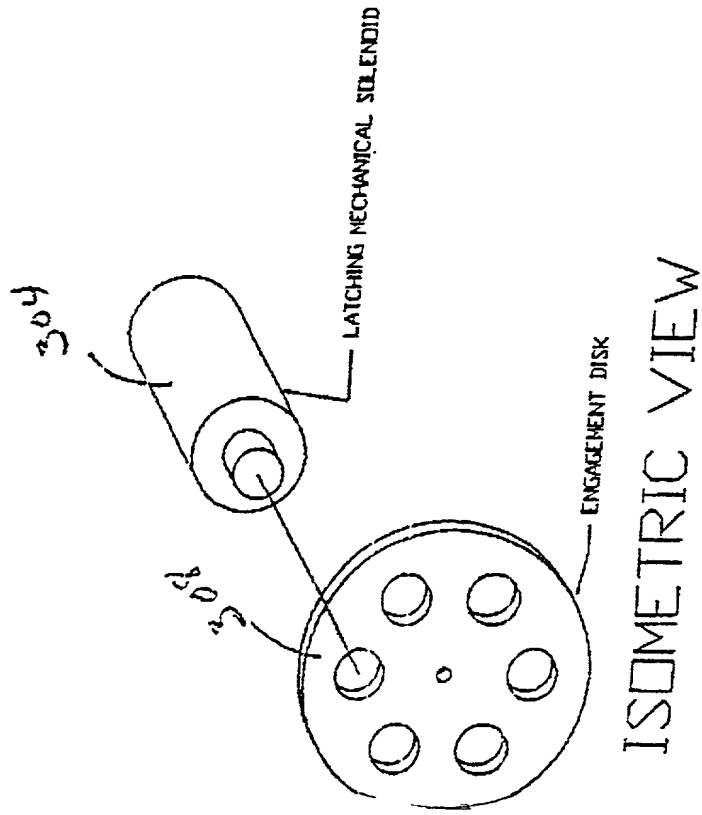


Fig 14

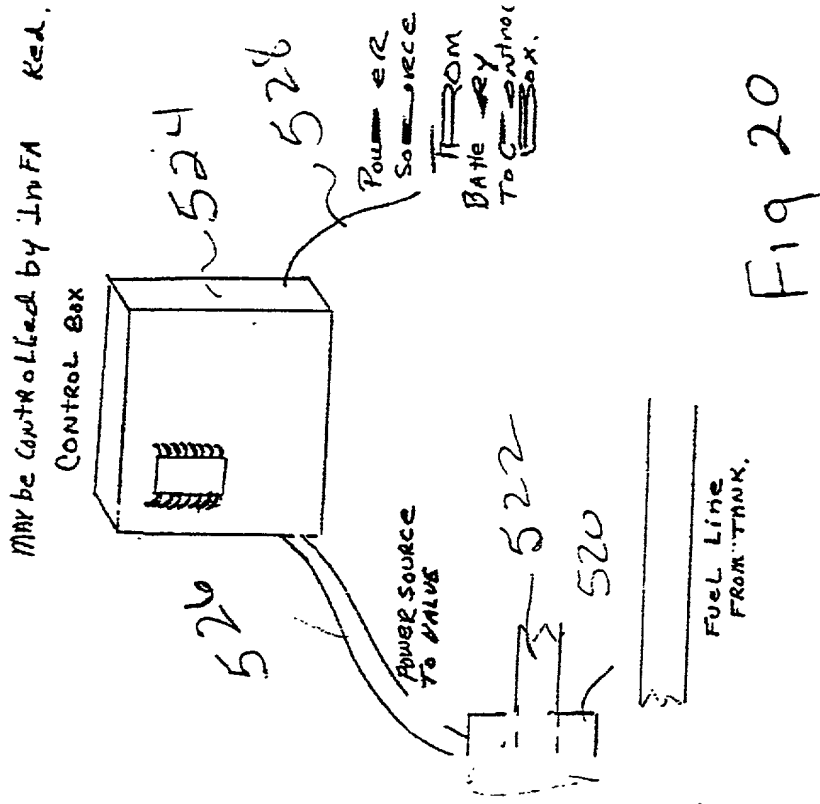


Fig 20

Docket No.

GC-334

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Locking Device For Tools And Equipment

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. or PCT International Application Number _____ and was amended on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/>
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/>
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	<input type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional

60/065,941

October 27, 1997

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

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